



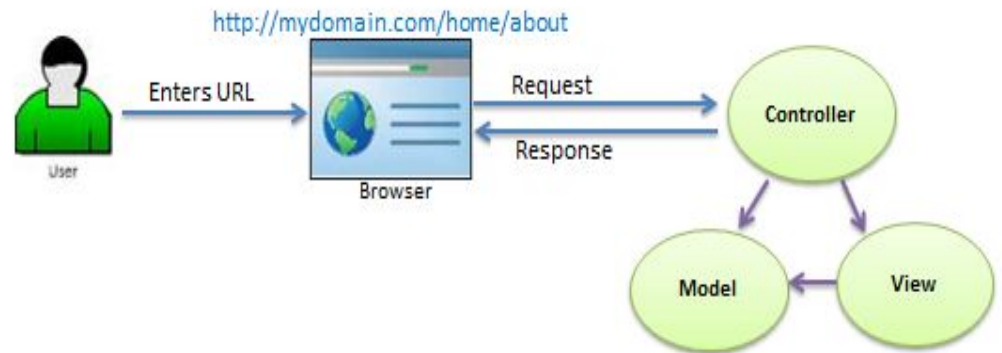
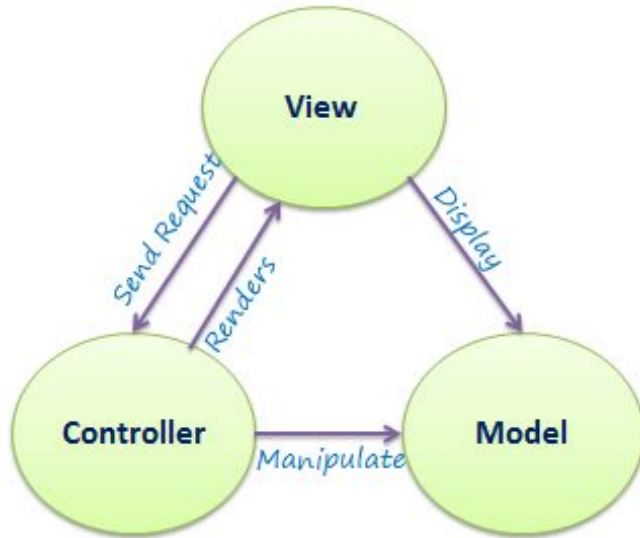
ASP MVC and WEB-API



Content

- MVC architecture
- ASP MVC Folder Structure
- CRUD operation
- Code Optimization
- What is a Web api ?
- Using Web Api with MVC project, testing through Postman

MVC Architecture





Html Helpers

Html Helper	Html
Html.TextBox()	<input / >
Html.TextArea()	<textarea></textarea>
Html.CheckBox()	<input type="checkbox" />
Html.DropDownList()	<select></select>

Controller Action method
http://localhost:1234/home/index/100 ← Id parameter value
Controller Action method
http://localhost:1234/home/index

```
public class RouteConfig
{
    public static void RegisterRoutes(RouteCollection routes)
    {
        routes.IgnoreRoute("{resource}.axd/{*pathInfo}");

        routes.MapRoute(
            name: "Default",
            url: "{controller}/{action}/{id}",
            defaults: new { controller = "Home", action = "Index", id = UrlParameter.Optional }
        );
    }
}
```

Route to ignore

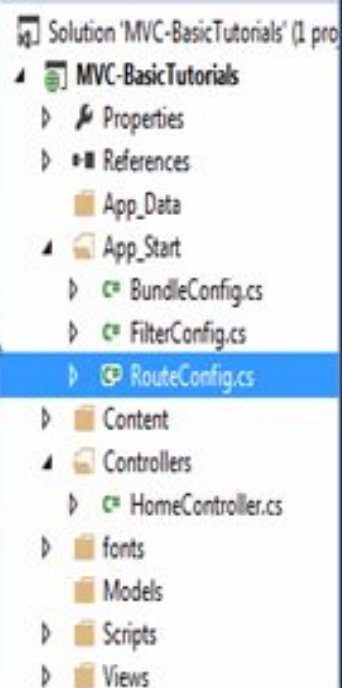
Route name

URL Pattern

Defaults for Route

© TutorialsTeacher.com

RouteConfig.cs





Routing Example

```
public class RouteConfig
{
    public static void RegisterRoutes(RouteCollection routes)
    {
        routes.IgnoreRoute("{resource}.axd/{*pathInfo}");

        routes.MapRoute(
            name: "Student",
            url: "students/{id}",
            defaults: new { controller = "Student", action = "Index" }
        );

        routes.MapRoute(
            name: "Default",
            url: "{controller}/{action}/{id}",
            defaults: new { controller = "Home", action = "Index", id = UrlParameter.Optional }
        );
    }
}
```

Actions Result

Result Class	Description	Base Controller Method
ViewResult	Represents HTML and markup.	View()
EmptyResult	Represents No response.	
ContentResult	Represents string literal.	Content()
FileContentResult, FilePathResult, FileStreamResult	Represents the content of a file	File()
JavaScriptResult	Represent a JavaScript script.	JavaScript()
JsonResult	Represent JSON that can be used in AJAX	Json()
RedirectResult	Represents a redirection to a new URL	Redirect()
RedirectToRouteResult	Represent another action of same or other controller	RedirectToRoute()
PartialViewResult	Returns HTML	PartialView()
HttpUnauthorizedResult	Returns HTTP 403 status	



CRUD

1- Get

- Connection Open
- Initialize Command
- Execute reader
- While reader has data, read object from reader. (Check if null, set to default)
- Connection dispose

To use a database, you will require respective database client, which you may add from NuGet package manager



CRUD

2- Insert

- Connection Open
- Begin Transaction
- Initialize Command
- ExecuteNonQuery
- If record added successfully, commit transaction, else rollback
- Connection close & dispose



CRUD

3- Update

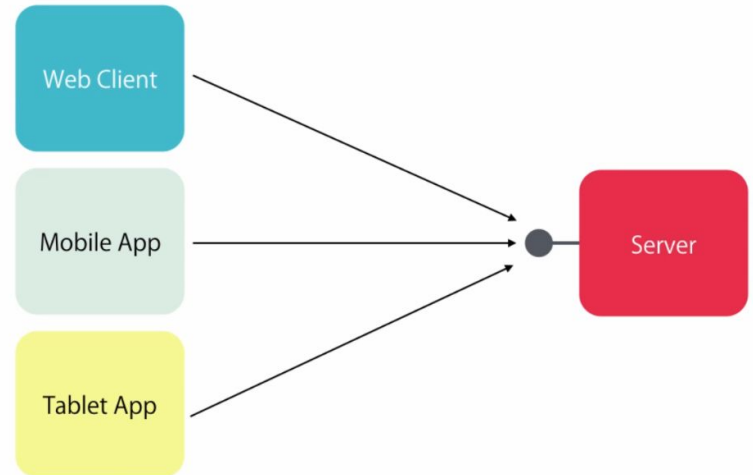
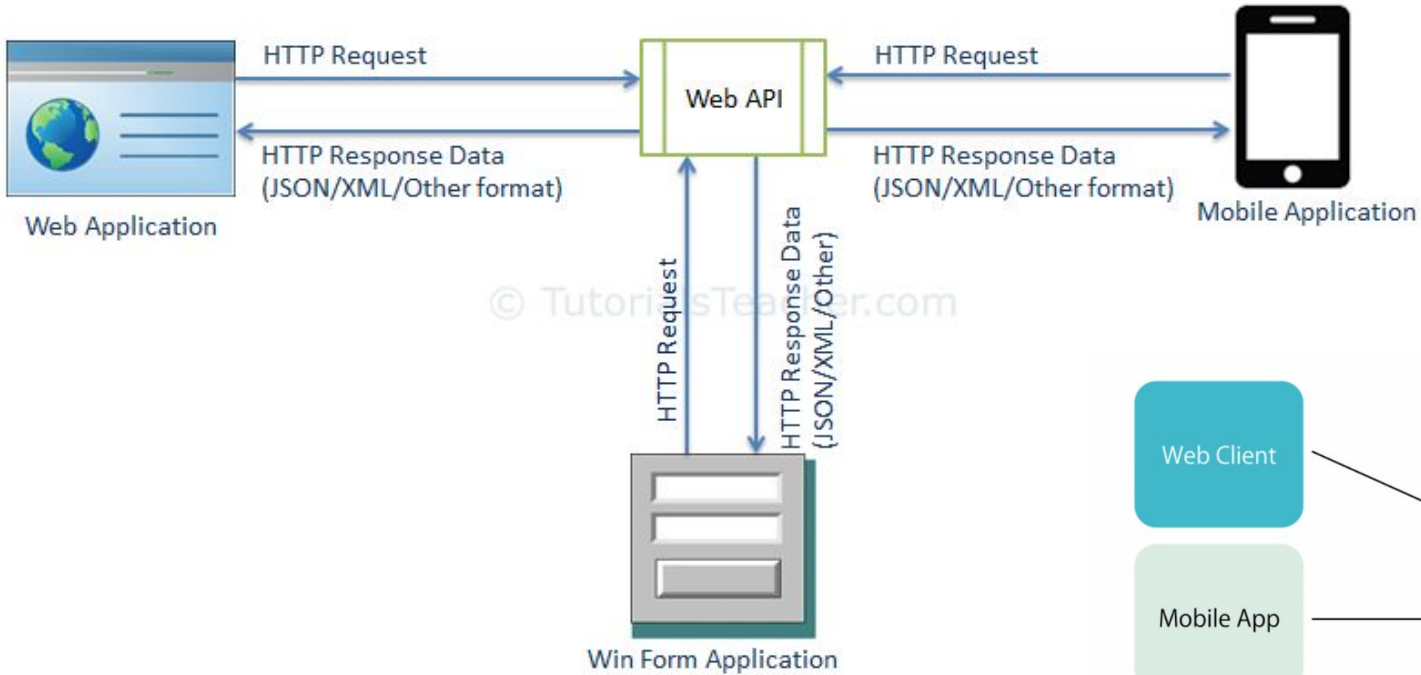
- Connection Open
- Begin Transaction
- Initialize Command
- ExecuteNonQuery
- If record added successfully, commit transaction, else rollback
- Connection close & dispose



Connection String in Web.config

- Separate Setting from Application code
- No need to restart server.

Web API



Web API Config

- Install webapi.cors from NuGet
- Enable Cors
- Set Media Formatters

Useful Links

- <https://www.udemy.com/course/the-complete-aspnet-mvc-5-course/>
- <https://www.youtube.com/user/kudvenkat>
- <https://www.tutorialsteacher.com/mvc/asp.net-mvc-tutorials>
- <https://www.c-sharpcorner.com>

